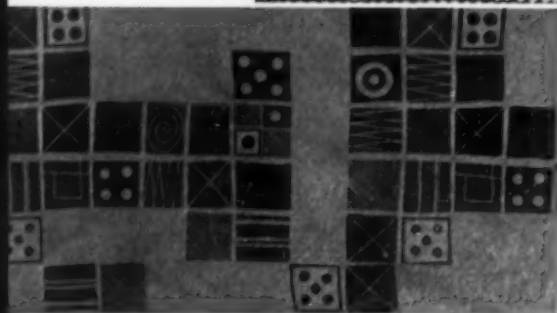




YOU CAN DO BLOCK PRINTING

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Acknowledgment: Hand-blocked prints on this page and in figures 1, 2, and 4 courtesy the Boston Block House, Boston, Massachusetts.

YOU CAN DO BLOCK PRINTING

Catharine U. Eichelberger

Block printing, like textile stenciling, decorative stitchery, and rug hooking, is a craft. It is the process of printing, on fabric or paper, with a block of linoleum or wood into which a design has been cut.

Anyone can do block printing. You do not need "special talent" or even experience, but you do need to practice. It is a good way to express yourself—everyone has some creative ability, you know. Sometimes it just has not had a chance to develop. Now is your opportunity to create your own designs—for yourself or to make attractive gifts. The whole family, from children to grandparents, can join in the fun.

Block printing has innumerable uses. You can use it to dress up table linens, dresses, blouses, draperies, guest towels, aprons, knitting bags, scarves, and stoles. Or you can block-print on paper to make greeting cards, book plates, book covers, title pages and illustrations for books, and covering for boxes.

SOURCES FOR SELECTING A DESIGN

Before gathering materials for making your block print, you will need to decide on a design. Your first, very own, design will be your greatest pride, so whenever possible create your own designs for block prints. If you prefer to copy or adapt a design rather than to create your own, choose one from good sources. Some possibilities are:

- Pennsylvania Dutch designs found in books or on objects such as dinnerware, tinware, wooden chests, or boxes

- Indian designs found on fabrics, wall hangings, prints, ceramics, etc.

- Designs on jewelry, ceramics, fabrics, books, etc., in museums and libraries

Start a search for good reference material on decorative design. Mount your material and put it in a portfolio, and you will have a handy source of inspiration for your own creations.

ELEMENTS OF DECORATIVE DESIGN

Before you choose a design for your block print, you need to know what design is. There are two distinct kinds of design, called "structural" and "decorative." In block printing, however, we are concerned with only one type of design and that is decorative. A decorative design is exactly what it sounds like—a pattern which decorates an object. A good design will enhance the article it decorates. The following are some of the elements of good design:

Use

A design for an article in good taste should first be appropriate to the article's use. A table mat that usually has a plate set in the middle of it needs a design placed to the right or left of the plate or around the border. A circular skirt requires a design that looks well when the skirt hangs in folds. Always ask yourself, "How will this design be used?"

Scale

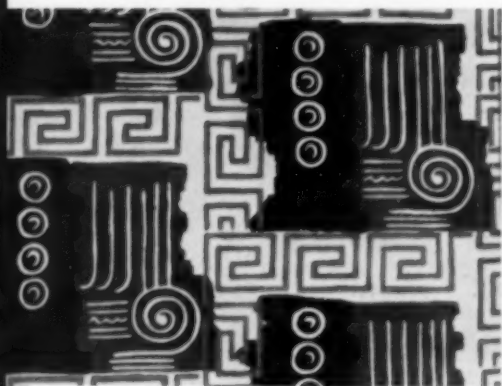
Scale refers to the relationship between objects in size and area. The scale of a design motif can make a piece look just right in its setting, or disturbing and out of place. For example, fabrics can be used flat on a table, hanging in folds as window draperies, or cut and draped in clothing. Each motif has its proper scale in relation to the object.

Very large motifs look best on window draperies, bedspreads, and so forth. Smaller ones look best on tea napkins, guest towels, and the like. Little rooms need smaller motifs than do spacious rooms, just as small people wear tiny patterns more becomingly than large ones.

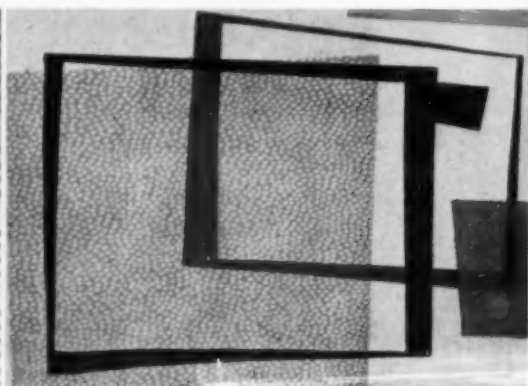
Motif

Some motifs, such as leaves, flowers, geometric units, and simple abstractions, are adaptable to almost every use. Motifs with human figures or animals might not be suitable for tablecloths, but might be good for draperies or a bedspread in a child's nursery.

1



2



Color

The wrong color can be very disturbing but the right color is a delight. The color of a textile should be harmonious in its setting and appropriate for its use.

Color combinations need to be planned carefully. A little study of color schemes and methods of mixing colors will improve your understanding of color and help you to choose the right ones for your block print designs.

If you print an intense color on gray or on its complementary color (such as red on green, purple on yellow, or orange on blue, or vice versa), the process of block printing will have a neutralizing or softening effect on the color. On the other hand, when you print a brilliant color on a white fabric, it appears even more brilliant, so you should gray the paint by adding a little of its complementary color.

To sum up, we might say that a design is attractive and in good taste when it is well planned for its use, it is in proper scale for its surroundings, the motif is suitable, and the color scheme is pleasing to look at.

HOW TO PLAN A DESIGN FOR A BLOCK PRINT

What are some of the methods of creating a good design? First, let's consider the specific things you must think about—the elements that build up the structure of a design. The four important elements of decorative design are line, mass, color, and texture.

Line

Lines can be straight or curved, as in figure 1. In block printing, line is most effective when it is used alone or in combination with mass and color, as in figure 2. The lines in your design should be wide to enable you to cut around them. Experiment in line with a small #2 watercolor brush and India ink. Practice curved lines which have rhythm; interlace them, and try to get interesting spaces between the lines, as in figure 3. Even your phone pad doodles may produce many of these designs. Figure 4 shows a block print design made from doodles.

3

4



Another way to create simple line designs is to start with a letter and exaggerate it so that it has interesting line rhythm. Repeat the letter many times; one letter may even overlap the other one and continue all over the fabric, as in example A. Monograms also make good designs as in example B.



A



B

Mass or space

By mass we mean the area enclosed by the line, as the white design of the leaf in example C.

If you repeat a leaf motif in a border design as in this example, the space around the leaves forms the background space. It is an important design element. You can print it by cutting out the leaf design on your printing block, or you can print the leaf design by cutting out the background. You can also print this design in line, by cutting on both sides of the line design and gouging out the background space.



C

Color

Colors should harmonize or contrast with the fabrics on which they are printed and with surrounding hues of walls, rugs, and china.

Practice printing by beginning with black on a colored fabric. If your design is an all-over pattern or a repeated border design, you can print one motif with black and the next one with gray, using the same block.

The next time, you may wish to choose a color to print on a colored background. Bright colors are interesting blocked on neutral backgrounds and neutral colors are good on vivid backgrounds. The bright color will seem less

vivid on the neutral color. To gray a color or make it softer, mix in a little of its complementary color.

Block printing need not be confined to printing with one color only, although one color is easiest for beginners. Many colors may be used for one motif design, but a separate block must be cut for each color. It requires much practice to get each block printed exactly in the right place, so at first it is best to limit yourself to one color.

You may want to practice mixing colors to achieve just the right shade for your block. To decide which color looks well with your fabric, make a collection of small color swatches and hold each one against your material.

Texture

By texture we mean the "feel" of a material—its smoothness or roughness, which is determined by the thickness of thread used. Fabrics which are made of fine threads and have a smooth surface are excellent for block printing because the design prints evenly. A coarse yarn will produce a rough texture, as in monk's cloth or burlap. These fabrics are also good for block printing and produce an interesting uneven surface.

MATERIALS

Linoleum blocks

You do not need much equipment to make simple block prints. Linoleum blocks already made up may be purchased at art supply stores or sometimes at stationery stores. These blocks are easy for beginners to use. They are made of plain brown battleship linoleum, from $\frac{3}{16}$ -inch to $\frac{1}{4}$ -inch thick, mounted on wood about $\frac{3}{4}$ -inch thick. The linoleum sometimes has a coating of white poster paint or paste shoe polish applied so that a pencil line will be easier to see when the design is traced for cutting.

You can cut expenses by making your own blocks. Cement battleship linoleum to plywood with glue or with linoleum mastic which may be purchased at stores selling floor coverings. The linoleum must be at least $\frac{3}{16}$ -inch thick—the thicker the better. The blocks must be carefully pressed with large clamps so that the surface remains flat, with no indentations. If you want to print a very large pattern with a block 12 inches square or bigger, linoleum can be glued to heavy cardboard instead of wood. Linoleum can also be used without being mounted at all, but it is not as easy to manipulate.

Cutting gouges and knives

Linoleum gouges for cutting come in sets which usually include two V-shapes, two U-shapes, and a straight knife. One type of linoleum cutter has five interchangeable cutting edges with one handle and sells for around one dollar. A gouge can be improvised by sharpening the end of a straight steel penpoint and inserting it into the pen holder upside down for cutting. A sharp penknife, a razor blade with a handle, or a stencil knife can be used to cut a block, but this is the hard way to do it.

Printing inks, thinners, and solvents

Several kinds of ink may be used for fabric printing.

1. Ordinary printer's ink in cans or tubes is very good. You can buy it in many colors in 1/2-pound or 1-pound amounts from your local printer. You may get it cheaper if you take your own jar.

2. Textile paints, too, are fine for printing on cloth. Made especially for textiles, and labeled "textile ink," they come in many colors. They are color-fast and probably the best to use but are also the most expensive. They are available in 1/4-pound and 1-pound tubes or cans directly from the manufacturer or from an art supply house.

3. Oil-base block-printing inks come in five or more colors, and are color-fast. They are available in small tubes ranging in price from 30 to 50 cents a tube, at art supply houses.

4. A satisfactory ink may be made by mixing about four parts of printer's ink called "mixing white" with about one part of artist's oil colors. "Mixing white" is obtainable almost everywhere in 1-pound tins for about one dollar. The mixing white gives colors the necessary sticky consistency. Artist's oil colors should not be used alone. They are too slick to roll evenly onto the block, and tend to make the fabric stiff.

5. Water-base block-printing ink is used to print on paper. Poster paint is also successful. Neither of these is washable, so they cannot be used on fabrics.

6. An ink-stamp pad, available at stationery stores in red, blue, gray, and purple, can be used without a roller or dauber on a small block. It is an easy way to print on paper, but should not be used on fabrics because the colors are not permanent.

"Permanent mixture" is a good thinner for inks and makes colors more permanent. It is obtainable at art stores.

Turpentine, engine, and benzine may be used as cleaners and as solvents for inks but never as thinners.

Brayer or dauber, and palette

To ink the block, you need a small rubber-covered roller from 3 to 6 inches long. It is called a "brayer," and you can buy it at a paint store. It helps to have a brayer for each color in a printing job. The brayer should be hung up when you are not using it.

Though a brayer works best, a homemade dauber can serve the same purpose. Wad a ball of absorbent cotton or felt about $\frac{1}{2}$ inch in diameter. Cover the ball lightly with silk or rayon, tying the cut edges together with a string or thread to form a handle. The ink is dabbed onto the block with this ball.

A piece of glass, plywood, cardboard, or a cookie sheet can be used as a palette. A spatula or palette knife is used to mix the ink.

To clean the ink from the brayer and block, you need turpentine, and either carbon tetrachloride or a non-inflammable spot remover. Be sure to use them in a well-ventilated room, and not near an open flame.

Fabrics

There are practically no limitations on the fabric you choose so long as it is appropriate for the finished article.

Firmly woven fabrics, such as unbleached muslin, Indianhead, broadcloth, and fabrics with a fine texture, such as pongee and China silk, organdy, or fine linen, are easy to use for printing since they have a flat, smooth surface. Other fabrics which can be used are percale, muslin, Osnaberg, dull spun rayons, balloon cloth, chambray, longcloth, nainsook, voile, wool challis, cotton marquisette, gabardine, and satin. New smooth-surface synthetics are also satisfactory.

Pile fabrics, such as terry cloth, velvet, and velveteen, will not print well, because the pile keeps the block from pressing evenly on the fabric. This is also true of piqué, seersucker, and other ribbed fabrics.

A very smooth fabric will take a fine, evenly colored print; a rough cloth will retain the texture of the fabric in printed spots.

Miscellaneous materials

Soft No. 2B pencils

Soft eraser

Scratch paper or unprinted newspaper

Thin tracing paper

Carbon paper

Scotch tape

Printing surface: sturdy table padded with cloth or newspaper

Paper towels

Rags

White vinegar

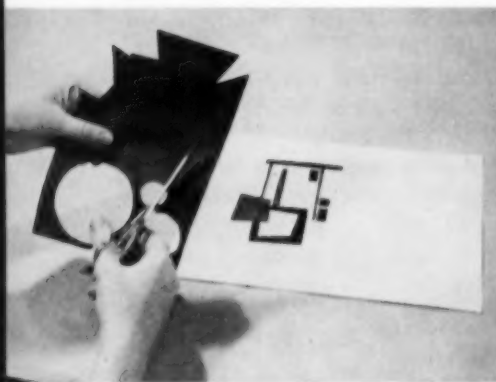
Work surface: sturdy table the right height for you to sit and cut block

PROCEDURE FOR BLOCK PRINTING

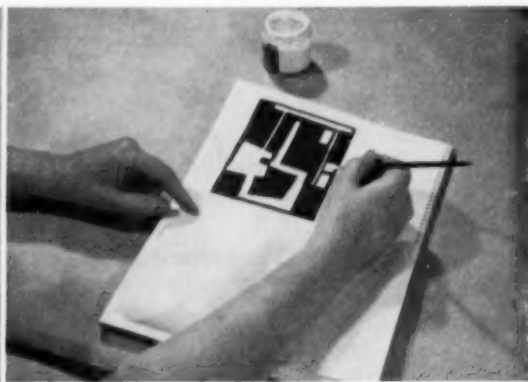
First, make a drawing of the design you want to print, planning its size and style appropriate to the object, its use, and the material. Or instead of making a drawing, you can plan your design with pieces of cut paper (figure 5). For a skirt, you might use a unit about five inches high and repeat it as a border design around the skirt. For a small pillow or knitting bag, one large unit can be printed alone or a small unit can be repeated over and over again as an all-over pattern.

Next, decide if you want to print the design or the background. This decision makes a difference in the amount of cutting you will have to do on the block. Make a sketch of your design and see whether you prefer the background light or dark (figure 6).

The parts of the linoleum you cut away with gouges are the parts that do not print. The parts of the block left standing are the parts that will have the color applied to them and will hit the cloth in the stamping operation, leaving the color on the cloth. For a colored design on a white background, you cut away all the background and let the design stand to be printed in color. If you have white material and want a white design on a colored background, you cut away the design and let the background stand so it can be printed in a color. The white fabric makes for design. It is possible to print with white onto a dark fabric, but the print will appear a little grayish.



5 Cut different geometric shapes from black or gray paper. Arrange them on white paper in a rectangle the size of your block print. Change them from side to side and from top to bottom of the rectangle until you get balance and good proportion in black and white spaces.



6 Try the design in white on black, either with paint or with cut paper. Decide which design is more effective. In this case the first design, in which the pattern is cut from black paper, was more effective.

When you have decided which part of the design you wish to print, it is time to trace the pattern (figure 7).

Trace the design onto the block

Trace the design very accurately upon the block (figure 8).

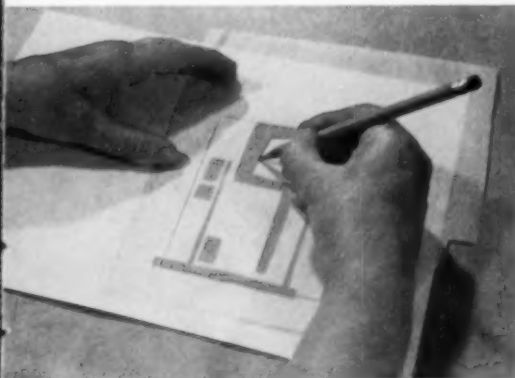
Caution: If the design depends upon a certain direction of line, as in lettering, it will have to be traced in reverse upon the block. It is very easy to forget this and to print the words on greeting cards backwards.

Cut the linoleum block

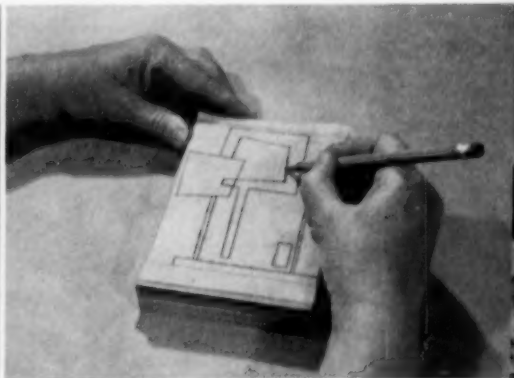
Before you make a single nick in your linoleum block, you must learn the principle that all parts to be printed are left the original height of the linoleum, unprinted areas are dug out or cut away. To make sure you do this correctly, it is wise to make a cutting guide on both the original design and the one traced on the block. Darken all parts to be left the original height of the linoleum; leave the cut-out areas white.

There are three techniques in cutting. You may use them separately or combine them.

1. First, outline the entire design with a V-shaped gouge. A razor blade may be used if the blade is held at an angle, slanting away from the part of the design to be printed. This slanted cut gives strength to the high part that prints under pressure. Now cut a line all around the design, holding the razor blade slanting toward the printing surface of the design. This cuts a



7 Thumb-tack a piece of tracing paper over your design and trace with a soft pencil.



8 Transfer the design to the block by placing the tracing on the block, pencil side down and going over the lines with a sharp pencil. You may need to place carbon paper under the design or blacken the back with a soft colored pencil.

V-shaped groove all around the design. A block cut in this manner is called a white line block; when it is printed, the design appears in lines only.

2. Proceed as for outlining; then with a U-shaped gouge or penknife, dig out all areas not to be printed (figure 9). You will either cut out the background or cut out the pattern.

3. "Detailing" is a combination of methods 1 and 2. By using tools in various ways to show the direction of the stroke of the cuts and varying the width of the cuts, you may obtain very interesting results.

Rules for cutting

There are several rules that may help you when you are cutting a block:

1. Cut slowly and exactly.
2. Cut large spaces deep. This keeps the paper or cloth from picking up excess ink that may have gotten on background areas.
3. Cut narrow spaces shallow.
4. Avoid deep vertical cuts and under cuts. Fragments of the linoleum break off, leaving ragged printed edges.
5. Square off the outside edges of the block with a vertical cut, slanting either in or out.



9 In cutting your linoleum block first use the v-shaped tool called the veiner and cut on the line of the design. Next use the u-shaped tool called the gouge and gouge out the background, leaving all parts to be printed the original height of the linoleum.



10 Spread the ink in a thin layer across the top of the palette, which may be glass or a cookie tin. Roll the brayer back and forth over the ink.

Prepare the fabric

Before you print, be sure that the fabric is cut to the desired size and is nicely finished, with neat hems and stitching. The fabric must be washed to remove sizing; otherwise sizing may wash out later, taking some of the printed design with it. Fabric should also be ironed before printing. It's a good idea to wash and iron some extra pieces of cloth to make test prints. With an unbleached fabric, you may want to use a laundry bleach before printing, but never use a bleach on the fabric after printing.

Mark the fabric with pencil dots where the corners of the block will come. Careful marking is essential, especially in a repeated pattern.

For fabrics that do not wash, such as wool, do not mark dots. Instead, stretch a piece of draftsman's tape on the cloth just above where the block will print and mark the guide dots on the tape.

Ink the brayer and block

Spread the ink in a thin layer across the top of the palette. Roll the brayer back and forth over the ink in both vertical and horizontal strokes (figure 10) or tap your cotton dauber on the palette until the palette and the brayer or dauber are evenly inked. Ink the block by tapping the dauber (figure 11) or rolling the brayer evenly onto the cut surface (figure 12).



11 A home-made cotton dauber can be used instead of the brayer to ink the block.



12 After inking the brayer or the dauber with the color you are using, roll the brayer (or tap the dauber) evenly onto the cut face of the block.

Print the linoleum block

Place a few layers of newspaper or two thicknesses of cotton flannel on a solid table to make a slightly soft printing surface. If you wish, lay a damp cloth over this. Smooth the fabric to be printed on top of this. Place the block, ink side down, on the cloth and hit it several times with a hammer, rubber mallet, or with the palm of your hand (figure 13). The bowl of a large mixing spoon makes a good tool for applying pressure to the back of the linoleum if it is not mounted on wood. Small pieces of fabric or cards can be pressed in an old-fashioned printing press (figure 14).

Printing on paper

Smooth paper takes an even print, although rough papers such as paper toweling produce an interesting print.

The print should be fairly even and solid.

If you are printing one unit on paper with a large wood or linoleum block, it is easier to put the paper over the inked surface of the block and rub the paper with the bowl of a large spoon.

Be careful not to let either the block or paper slip while you are printing.

Dry the print

After the fabric or paper is printed, lay it on newspapers or hang it over a taut line to dry; very small pieces should be pinned to the line. Printing ink requires a long time to dry, usually from 4 to 10 days, depending on the weave of the cloth.



13 Place the block ink side down on the cloth and hit it several times with a hammer.



14 To print small pieces of fabric or cards in printing press, use newspapers on the base of the press for a padding. Lay the fabric or card on cardboard and place the block on it, ink side down. Next, put it in the press and turn the handle to get an even pressure.

You will need to set the color on a fabric after it is dry. Use a soft cloth saturated with white vinegar. Wring out the cloth and place it over the design with the printed side up. Press with a hot iron over all the printing until the pressing cloth is dry. It is not necessary to set colors on paper.

Cleaning up

Scrape the remaining ink off the palette and brayer with a spatula. Wipe off the spatula with a paper towel. Then clean all of them with paper towels wet with turpentine (figure 15); dry with cloths. Clean the linoleum block with rags wet in turpentine. An old toothbrush dipped in turpentine is good for scrubbing ink out of the small cuts in the block. Dust the brayer with talcum powder before you put it away. Tie a piece of cardboard over the block to keep the surface from getting nicked, marked, or dusty.

Printing without a block

Actually, you do not even need a real block to print. You can print attractive patterns by cutting your own design from a raw potato or a soft white eraser. This will give you good practice in cutting and simple printing. You can also make interesting designs for curtains, aprons, and tablecloths with a slice of green pepper or half an onion (figure 16). The natural contours of the vegetable make a delightful pattern. You might also use a leaf, the base of an inkwell, a cut-glass dish, a button with an unusual design—whatever you find that you think might be attractive. This type of printing is especially easy and enjoyable for children to do.



15 Clean the brayer with paper towels or old rags wet with turpentine; dry with cloths.



16 A cut onion, green pepper, or other vegetable can be used to print on fabric or paper.

SUGGESTED READING

Cox, Doris, and Weismann, Barbara Warren. "Creative Hands." John Wiley and Sons, Inc., New York. 1945. Chapter XII—Excellent on block printing with good illustrations.

Dobson, Margaret. "Block Cutting and Print Making by Hand." Sir Isaac Pitman and Sons, Ltd., London. 1930. Emphasis is placed upon pictorial rather than decorative design. Good suggestions for keying color blocks are given.

Hubbard, Hasketh. "Color Block Print Making." The Forest Press, Breamore, England. 1927. No. 3.

Pettit, Florence Harvey. "Block Printing on Fabrics." Hastings House, New York. 1952.

Watson, Ernest W. "Linoleum Block Printing." Milton Bradley Company, Springfield, Mass. 1929.

You might also enjoy reading something about the history of block printing. Here are two suggestions:

Perry, Raymond W. "Block Printing Craft." Manual Arts Press. 1938. Chapter II—Brief historical survey.

Polk, Ralph W. "Essentials of Linoleum Block Printing." Manual Arts Press. 1927. Chapter I—A brief history of block printing.

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